

GreenCremation.com

## Understanding Green Cremation

Green Cremation, also known as "Bio Cremation," is a gentle, eco-friendly alternative to flame-based cremation or casket burials. It is a quiet process that uses water and potassium hydroxide to reduce the body to its basic element of bone ash. The ashes are then returned to the family. The process was adapted for funeral home use by the Mayo Clinic in their anatomy bequest program and is now becoming available to the general public. Bradshaw is the first and only firm in Minnesota to provide this revolutionary service.

# Green Cremation vs. Traditional Cremation

By definition, cremation is the process of reducing the body to its basic elements of bone fragments through the use of heat. Unlike traditional flame-based cremation, Bio Cremation technology uses water blended with an alkali solution of potassium hydroxide (KOH). The human body is placed into a pressurized stainless steel cremation chamber where water and alkali are automatically added and the temperature is raised to 350°F. Water, alkali, heat and pressure are gently circulated over the body, working together to cause a reaction that begins and completes the cremation process.

## The Same End Result

Whether you choose burial, flame cremation or Bio Cremation, the end result is the same—each body is eventually reduced to its basic elements of bone ash. The primary difference between burial, flame cremation or Bio Cremation is the amount of time the process takes as well as the “catalyst” that supports the transition.

With burial, the transition may take up to 25 years, and soil and micro-organisms are the catalysts that reduce the body to bones. With flame-based cremation, the transition takes approximately 2-3 hours, and the catalysts to reduce the body to bones are flame created by fuel (CH<sub>4</sub> natural gas or C<sub>3</sub>H<sub>8</sub> propane gas) mixed with oxygen. On the other hand, with Bio Cremation, the transition takes approximately 2-3 hours and the catalysts to reduce the body to bones are water (95%) and potassium hydroxide (KOH).

As you see, each of these options begins with a body and eventually ends with bones. However, out of all these end of life choices, Bio Cremation has the smallest environmental impact on our planet. Therefore, if you are looking for the most eco-friendly end of life option, Bio Cremation may be the best choice for you.

## Common Misconceptions

Although there are many misconceptions about the Bio Cremation process, the following are the two most common myths about this process:

### ***Myth #1: Acid is used during the Bio Cremation process.***

This is completely false. There is absolutely no acid used during this gentle, water-based process. With Bio Cremation, the only chemical mixed with the water is an alkaline called potassium hydroxide (KOH), which is a colorless solid, inorganic compound. KOH was the precursor to numerous health and beauty cosmetics and pharmaceuticals, and this substance is also used in blanching olives, soft soaps, cleaning supplies and other items you would commonly find in your home. In the Bio Cremation process, the reaction of KOH in water is exothermic, meaning it gives off significant heat which contributes to the hydrolyzing or breakdown of the human tissue in the sealed cremation chamber.

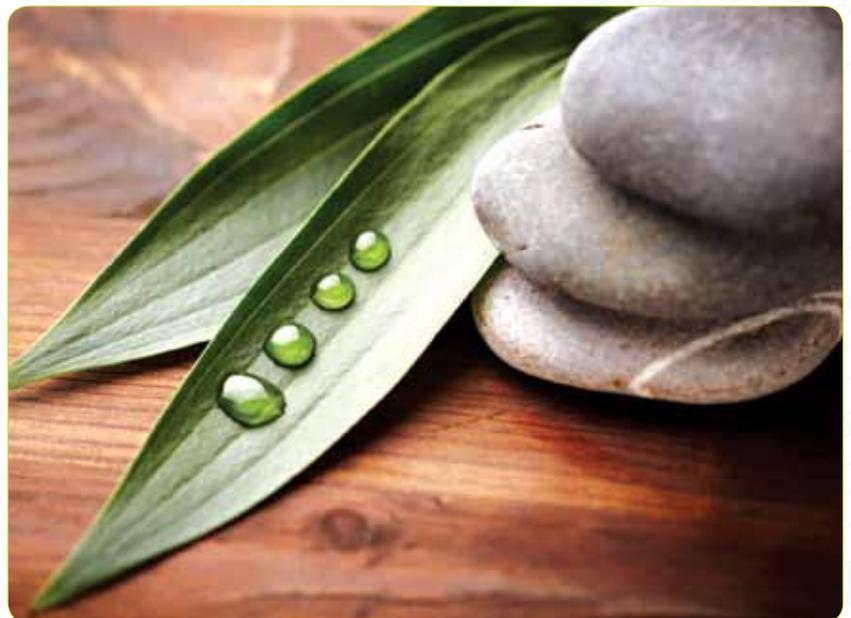
### ***Myth #2: The Bio Cremation process “boils” the body.***

This is also absolutely false. Bio Cremation creates a highly controlled and sophisticated environment that uniquely combines water, alkali, heat and pressure. This process biochemically hydrolyzes the human body, leaving only bone fragments. During a typical Bio Cremation cycle, the body is reduced, bone fragments are rinsed and the remaining by-product is a sterile fluid.

## The Bio Cremation Process

Bio Cremation is basically an accelerated version of what takes place in natural decomposition. At the end of the process, the body is returned to its natural form, dissolved in the water.

The Bio Cremation process is typically a two to three hour cycle, similar to traditional cremation. The body is placed in a stainless steel cremation chamber, where water (95%), an alkali additive (5%), heat and pressure are added. This combination of water, alkali, heat and pressure reacts to gently reduce the body to bone fragments and a sterile solution that is recycled to the earth.



## Exceedingly Eco-friendly

Bio Cremation is an extremely environmentally-friendly choice — even greener than flame based cremation — because there are almost zero air emissions admitted into the atmosphere during this process. Bio Cremation offers the following environmental advantages over traditional flame-based cremation:

- No vaporized mercury emissions and no filtration or abatement systems required. Mercury from dental amalgam is contained and recycled, not vaporized.
- Caskets are not burned, which protects our natural resources and produces less CO<sub>2</sub>.
- Low carbon footprint: 4x less carbon impact versus traditional flame cremation. Bio Cremation also reduces the use of fossil fuels and minimizes greenhouse gases.
- Energy efficient: 1/8 the energy usage versus traditional flame cremation.
- By-product (effluent) is safe with no harmful chemical or microbial contamination.
- Preserves 20+% more bone fragments than traditional flame cremation.
- Embalming fluid is neutralized and cytotoxic drugs are destroyed in the process.
- Pacemakers do not need to be surgically removed prior to the process.
- Medical implants are unaffected and can possibly be recycled.

The sterile by-product (effluent) from Bio Cremation™ which is made up of small peptides, sugars, amino acids, and soaps is sent to water recycling through municipal water treatment where it is filtered, purified and recycled back to earth either through the aquifer, lakes, streams and non potable water use. In essence, the body is recycled without harm to the environment. With Bio Cremation, we return to the earth through a cycle of life, helping to promote new life as nature intended it to occur.

## Meaningful Services

Families who choose Green Cremation can still hold a meaningful event, gathering and/or memorial service to celebrate and honor the life of their loved one. For those loved ones who would like to have private family time or a short service immediately before the Green Cremation, they may do so from the stunning green cremation area at our Celebration of Life Center in Stillwater. Featuring earth-toned stucco walls, striking bluestone floors, warm lighting, a water wall and understated elegance throughout, this spa-like space offers the perfectly peaceful setting to honor your loved one's unique life.

## Casket Options

A traditional wood or cardboard casket cannot be consumed during the Green Cremation process (the process only accommodates protein base material). Therefore, we offer a silk cremation container with a stainless steel frame, which is introduced into a standard rental casket for viewing. Once a service is complete, the silk cremation container and stainless steel frame can be removed from the rental casket and placed directly into the bio cremation equipment. The silk cremation container is consumed during the cremation cycle and the sterile insert is removed and reused.

## Clothing Options

Since Bio Cremation can only accommodate protein based material, your loved one must wear clothing made of silk, wool or leather during the process. This clothing is then consumed during the cremation process.

In an effort to simplify your family's decision regarding clothing, we offer an attractive silk robe, appropriate for visitation and/or viewing. The robe will be consumed along with the body during the gentle bio cremation process, leaving only sterile white bone fragments. We understand each family's desire for dignity and respect during this difficult time. That's why we are committed to providing specialized products that meet your family's needs.





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2800 Curve Crest Boulevard • Stillwater, MN 55082 • 651.342.4040 • info@greencremation.com